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PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of
INOUE, TSUYOSHI, et al. ✓
Appln. No.: 09/311,753 ✓
Confirmation No.: 1662
Filed: May 14, 1999 ✓
For: ✓ SHEET FOR PROTECTING PAINT FILMS OF AUTOMOBILES

Docket No: Q54370
Group Art Unit: 1773 ✓
Examiner: Kevin M. Bernatz ✓

RESPONSE UNDER 37 C.F.R. § 1.111

Commissioner for Patents
Washington, D.C. 20231

Sir:

This is responsive to the Office Action dated February 6, 2003.

Claims 2 and 3 are all the claims pending in the application.

In Paragraph No. 4 of the Office Action, Claims 2 and 3 have been rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Miyahara et al (JP 8-20751) in view of any one of Arakawa et al (JP 07-328528), Mussig (U.S. Pat. No. 6,319,353 B1) and Matsui et al (EP 768354 A2).

Miyahara et al was relied upon to disclose a sheet which comprises a support comprising a polymer film laminated on one or both surfaces of a non-woven fabric, and a pressure sensitive adhesive layer formed on one surface of said polymer film, wherein said non-woven fabric has a basis weight of 5 to 100 g/m² and the polymer film comprises a thermoplastic polymer. Miyahara et al was also relied upon to disclose a polymer film having a thickness of 5 to 40 μm.

Arakawa et al, Mussig and Matsui et al were relied upon to teach that it is known to use plastic films with a pressure sensitive adhesive layer as a method of protecting paint films of automobiles from debris, dirt and etc.

The Examiner conceded that Miyahara et al does not teach a method of protecting paint films of automobiles using the disclosed sheet. However, it was concluded that such a method would have been obvious to one skilled in the art in view of the disclosure of Arakawa et al, Mussig or Matsui et al.

Applicants respectfully traverse the rejection for the reasons set forth below.

Miyahara et al discloses an adhesive tape for repair of cauterization section of a surface of metal, consisting of a base material and a binder layer, wherein the base material consists of nonwoven fabric and a plastic film, and the binder layer is formed on the plastic film (paragraphs 0007 and 0008 of the machine English translation).

Miyahara et al also discloses that the fabric has a basis weight of $30\text{-}70\text{g/m}^2$, and a thickness of 0.3mm or less (paragraph 0010), that the plastic film can be a polypropylene film having a thickness of 0.005-0.1mm (paragraphs 0012 and 0013), and that the binder layer may have a thickness of 0.1-0.5mm (paragraph 0016).

The adhesive tape of Miyahara et al is for "cauterization section repair," which is different from the field of endeavor of the present invention and the cited secondary references, i.e., methods for protecting paint films of automobiles. Further, the main object of Miyahara et al is to repair a corroded metal surface. In contrast, the present invention is designed to, and

solves the problems associated with peeling conventional protective sheets off of automobile paints. Since Miyahara et al is neither in the field of endeavor of, nor related to the problems to be solved in the present invention, Applicants respectfully submit that it is not appropriate as prior art.

a. Rejection over Miyahara et al in view of JP '528

JP '528 teaches a method for protecting paint films of automobiles by applying a re-exfoliation type pressure-sensitive binder 20-50mm towards the periphery edge of an object, for example, a trunk lid or top, and fixing a plastic film to the body through the binder (Claims 1-4). JP '528 further discloses that the plastic film may be polyethylene or its copolymers having a thickness of 1-1000 μ m (paragraph 0022), and that the binder has a thickness of 1-100 μ m (paragraph 0020).

The inventive feature of JP '528 is to provide a binder only toward the periphery edge of an object to be protected, because of the specific problems, such as difficulties in peeling off the protective film, when an adhesive layer is formed on the entire surface of a plastic film (paragraph 0004).

Miyahara et al teaches that the adhesive layer in the adhesive tape is formed on the entire surface of the plastic film (drawing 1). Accordingly, Applicants respectfully submit that one skilled in the art would not have been motivated to use the adhesive type of Miyahara et al for protection of paint films of a car.

b. Rejection over Miyahara et al in view of Mussig

Mussig discloses a protective film for use on painted vehicles comprising an adhesive and a thermoplastic film, preferably polyolefin film, wherein the adhesive consisting of a copolymer comprising at least two different α -olefins having 2 to 12 carbon atoms and at least one further comonomer (abstract).

Mussig also discloses that “the particular significance of the invention...consists primarily in the composition of the pressure-sensitive adhesive layer” and in the combination of the process for preparing the protective film and the composition of the backing film (column 3, lines 35-40).

On the other hand, the binder layer of Miyahara et al is desirably a rubber (paragraph 0015 of Miyahara et al). Accordingly, Applicants respectfully submit that one skilled in the art would not have been motivated to use the adhesive tape of Miyahara et al for protection of painted cars, in view of the disclosure of Mussig.

c. Rejection over Miyahara et al in view of Matsui et al

Matsui et al discloses a protective sheet for paint films of automobiles, comprising a support, preferably polyolefin, and a pressure-sensitive adhesive layer (page 3, lines 24-34), wherein the pressure-sensitive adhesive layer can be formed using a polyisobutylene, butyl rubber or a mixture thereof (page 4, lines 54-55), having a thickness of 10 to 20 μ m for desired adhesive force (page 5, lines 6-7).

On the other hand, the binder layer of Miyahara et al has a thickness of 100-500 μ m, which is far beyond the range recited in Matsui et al. Accordingly, Applicants respectfully submit that there is no suggestion or motivation to use the adhesive tape of Miyahara et al as a protective sheet for automobiles in view of the disclosure of Matsui et al.

In view of the above, the Examiner is respectfully requested to reconsider and withdraw the rejection.

In Paragraph No. 5 of the Office Action, Claims 2 and 3 have been rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Seth (U.S. Pat. No. 6,129,964) in view of any one of Arakawa et al, Mussig and Matsui et al.

Seth was relied upon to teach a sheet which comprises a support comprising a polymer film laminated on one or both surfaces of a non-woven fabric, and a pressure-sensitive adhesive layer formed on one surface of the polymer film, wherein the non-woven fabric has a basis weight of 5-100g/m² and the polymer film comprises a thermoplastic polymer.

Seth was also relied upon to disclose a thickness of the polypropylene backing layer in a range overlapping that in the present invention.

Applicants respectfully traverse the rejection for at least the reasons set forth below.

The adhesive tape of Seth was used as a fastening tape, which is different from the field of endeavor of the present invention and the cited secondary references, i.e., methods for protecting paint films of automobiles. Further, the main object of Seth was to obtain a fastening tape which can be wound into a roll, without the need for high levels of interfiber binding or

overcoat layers (column 1, lines 60-64). In contrast, the present invention is designed to, and solves the problems associated with peeling conventional protective sheets off of automobile paints. Since Seth is neither in the field of endeavor of, nor related to the problems to be solved in the present invention, Applicants respectfully submit that it is not appropriate as prior art.

a. Rejection over Seth in view of JP '528

As described above, the inventive feature of JP '528 is to provide a binder only toward the periphery edge of an object to be protected, because of the specific problems, such as difficulties in peeling off the protective film, when an adhesive layer is formed on the entire surface of a plastic film.

Seth teaches that the adhesive layer in the adhesive tape is formed on the entire surface of the plastic film. Accordingly, Applicants respectfully submit that one skilled in the art would not have been motivated to use the adhesive type of Seth for protection of paint films of a car in view of the disclosure of JP '528.

b. Rejection over Seth in view of Mussig

Seth discloses that the adhesive can be acrylates, tackified natural rubber, or tackified synthetic rubber resins, etc. Applicants believe that these adhesives are not copolymers comprising at least two different α -olefins having 2 to 12 carbon atoms and at least one further comonomer, as required in Mussig. Accordingly, one skilled in the art would not have been motivated to use the adhesive tape of Seth for protection of painted cars, in view of the disclosure of Mussig.

c. Rejection over Seth in view of Matsui et al

Seth does not specifically describe the thickness of the adhesive layer. In Examples, the thickness of the adhesive layer used was 38 μ m. On the other hand, the pressure-sensitive adhesive layer in the protective sheet of Matsui et al has a thickness of 10 to 20 μ m for desired adhesive force. The thickness of the adhesive layer of Seth falls outside that required in Matsui et al. Accordingly, Applicants respectfully submit that there is no suggestion or motivation to use the adhesive tape of Seth as a protective sheet for automobiles in view of the disclosure of Matsui et al.

In view of the above, the Examiner is respectfully requested to reconsider and withdraw the rejection.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

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U.S. Appln. No. 09/311,753

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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